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What is claimed is:

1. An oil filter, comprising:

a hollow housing having an inlet and an outlet and defining a chamber therein with a flow path between the inlet and outlet;

5 a mechanically active filter member disposed inside the housing in the flow path; and
a chemically active filter member disposed inside the housing in the flow path;

wherein the chemically active filter member comprises a plurality of pellets having a diameter in a range of 0.10 to 3 mm, said pellets comprising:

10 a polymeric binder which is present in a range of 3-20 percent by weight of
the total weight of the pellet; and

a basic salt selected from the group consisting of calcium carbonate,
potassium carbonate, potassium bicarbonate, aluminum dihydroxy sodium
carbonate, magnesium oxide, magnesium carbonate, zinc oxide, sodium
bicarbonate, sodium hydroxide, calcium hydroxide, potassium hydroxide, and
15 mixtures thereof, the basic salt being present in a range of 80-97 percent by weight
of the total pellet weight.

2. The oil filter of claim 1, wherein the polymeric binder is selected from the group consisting of polyamides, polyimides, polyesters, polyolefins, polysulfones, and mixtures thereof.

20 3. The oil filter of claim 1, wherein the mechanically active filter element is substantially cylindrical in shape, and wherein the chemically active filter element is also substantially cylindrical in shape and is disposed radially and coaxially inside of said mechanically active filter element.

4. The oil filter of claim 1, wherein the pellets of the chemically active filter member are connected together to form a substantially integral permeable member.

25 5. The oil filter of claim 1, wherein the pellets are a product of a process comprising the steps of:

providing the polymeric binder in a finely divided form;

mixing the polymeric binder with the basic salt in a liquid solvent;

forming the mixture of binder and salt into pellets; and
removing the solvent from the pellets by evaporation.

6. The oil filter of claim 5, wherein the solvent used in pellet formation is an organic solvent.

5 **7. An oil filter, comprising:**

a hollow housing having a base plate for placement proximate an engine surface, said base plate having an outlet aperture formed therethrough and an inlet aperture formed therethrough and spaced apart from said outlet aperture;

10 a mechanically active filter element disposed within said housing spaced away from said base plate;

a substantially cylindrical dividing wall member disposed within said housing adjacent said base plate;

said dividing wall member defining an inlet flow channel on the outside thereof within the housing and in fluid communication with said inlet aperture of said base plate,

15 said dividing wall member further defining an outlet flow channel therein in fluid communication with said outlet aperture of said base plate; and

a chemically active filter member disposed within said inlet flow channel of said housing between said base plate and said mechanical filter element,

20 said chemically active filter member comprising a plurality of pellets having a diameter in a range of 0.10 to 5 mm, said pellets comprising:

a polymeric binder which is present in a range of 3-20 percent by weight of the total weight of the pellet; and

25 a basic salt selected from the group consisting of calcium carbonate, potassium carbonate, potassium bicarbonate, aluminum dihydroxy sodium carbonate, magnesium oxide, magnesium carbonate, zinc oxide, sodium bicarbonate, sodium hydroxide, potassium hydroxide, calcium hydroxide, and mixtures thereof, the basic salt being present in a range of 80-97 percent by weight of the total pellet weight.

8. The oil filter of claim 7, further comprising a foraminous divider disposed between the chemically active filter element and the mechanically active filter element.

9. The oil filter of claim 7, wherein the pellets of the chemically active filter element are a product of a process comprising the steps of:

- separating the polymeric binder into a finely divided form;
- mixing the polymeric binder with the basic salt in a liquid solvent;
- 5 forming the mixture of binder and salt into pellets; and
- removing the solvent from the pellets by evaporation.

10. A supplemental cartridge for use in conjunction with an oil filter, said supplemental cartridge comprising:

a hollow housing, comprising

10 a base plate for placement proximate an engine surface, said base plate having an outlet aperture formed substantially centrally therethrough and an inlet aperture formed therethrough and spaced apart from said outlet aperture;

15 a cap opposite said base plate for placement proximate an oil filter, said cap having an inlet aperture formed substantially centrally therethrough and an outlet aperture formed therethrough and spaced apart from said inlet aperture;

an outer wall connecting said cap and said base plate;

a substantially cylindrical dividing wall member disposed within said housing and separating said housing interior into an inlet flow channel in fluid communication with said inlet aperture of said base plate, and an outlet flow channel in fluid communication with said outlet aperture of said base plate; and

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a chemically active filter member disposed within said inlet flow channel of said housing, said chemically active filter member comprising a plurality of pellets having a diameter in a range of 0.10 to 5 mm, said pellets comprising:

25 a polymeric binder which is present in a range of 3-20 percent by weight of the total weight of the pellet; and

a basic salt selected from the group consisting of calcium carbonate, potassium carbonate, potassium bicarbonate, aluminum dihydroxy sodium carbonate, magnesium oxide, magnesium carbonate, zinc oxide, sodium bicarbonate, sodium hydroxide, potassium hydroxide, calcium hydroxide, and mixtures thereof, the basic salt being present in a range of

80-97 percent by weight of the total pellet weight.

11. The supplemental cartridge of claim 10, wherein the pellets of the chemically active filter element are a product of a process comprising the steps of:

separating the polymeric binder into a finely divided form;

5 mixing the polymeric binder with the basic salt in a liquid solvent;

forming the mixture of binder and salt into pellets; and

removing the solvent from the pellets by evaporation.

12. The supplemental cartridge of claim 10, further comprising:

an auxiliary inlet tube attached to said outer wall of said housing and being in fluid

10 communication with said inlet flow channel thereof; and

an auxiliary outlet tube attached to said outer wall of said housing and being in fluid communication with said interior thereof.